Mr. Rohrabaugh
Aisin USA Manufacturing, Inc.
1700 East Fourth Street
Seymour, Indiana 47274

Re: **071-11961-00017**
Minor Source Modification to:
Part 70 permit No.: **T071-7527-00017**

Dear Mr. Rohrabaugh:

Aisin USA Manufacturing was issued a permit on February 9, 1999 for the operation of an automobile components assembly plant. An application to modify the source was received on March 1, 2000. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) roll forming process line, identified as Line #0111, with a maximum capacity of coating 509 pounds of formed metal per hour, using a 5.5 million British thermal units (MM Btu) per hour catalytic oxidizer for emissions control, and exhausting to stack S8.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. These proposed operating conditions shall be incorporated into the Part 70 operating permit as an administrative amendment in accordance with 326 IAC 2-7-10.5(l)(1) and 326 IAC 2-7-11.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call Linda Quigley at (973) 575-2555, ext. 3284, or call (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
LQ/EVP
cc: File - Jackson County
U.S. EPA, Region V
Jackson County Health Department
Air Compliance Section Inspector - Joe Foyst
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 OPERATING PERMIT
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT

Aisin USA Manufacturing, Inc.
1700 East Fourth Street
Seymour, Indiana 47274

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T071-7527-00017	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: February 9, 1999

First Minor Source Modification: 071-11961-00017	Pages Affected: 5, 6, 28
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates an automobile components assembly plant.

Responsible Official:	Don R. Rohrabaugh
Source Address:	1700 East Fourth Street, Seymour, Indiana 47274
Mailing Address:	1700 East Fourth Street, Seymour, Indiana 47274
SIC Code:	3714
County Location:	Jackson
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is consists of the following emission units and pollution control devices:

(a) One (1) E-coat Line, identified as EU01A, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation;

(b) One (1) E-coat Line, identified as EU01B, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation;

(c) One (1) paint booth, identified as EU01C, with a maximum capacity of 4333 pounds of brake drums per hour, using no control, and exhausting to stack S7;

(d) One (1) roll forming-metal process, identified as EU01D, consisting of seven (7) flowcoaters, #0101, #0102, #0104, #0105, #0108, #0109 and #0111, with a maximum capacity of 4588 pounds of formed metal per hour, using a 5.5 MM Btu/hr catalytic oxidizer, RFCO1, and exhausting to stack S8.

(e) One (1) roll forming-pvc process, identified as EU02, with a maximum capacity of 679 pounds of metal molding per hour, using no control, and exhausting to stack S8.

(f) One (1) press forming process, identified as EU03, with a maximum capacity of 61 pounds of metal parts per hour, using no control, and exhausting to stack S1.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) Space heaters, process heaters, or boilers using the following fuels:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour. (One (1) space heater and (1) boiler with maximum capacities of 0.53 and 6.0 MM Btu/hr, respectively).

(2) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(3) Other activities or categories not previously identified:

Lead (Pb) = 0.6 ton/year or 3.29 lb/day
Sulphur Dioxide (SO2) = 5 lb/hr or 25 lb/day
Nitrogen Oxides (Nox) = 5 lb/hr or 25 lb/day
Carbon Monoxide (CO) = 25 lb/day
Particulate Matter (PM) = 5 lb/hr or 25 lb/day
Volatile Organic Compounds = 3 lb/hr or 25 lb/day

Production Welding: PM
Machining (ICM): PM
Electroplating/ Anodizing: PM

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22)

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) E-coat Line, identified as EI01A, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation.

(b) One (1) E-coat Line, identified as EI01B, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation.

(c) One (1) paint booth, identified as EU01C, with a maximum capacity of 4333 pounds of brake drums per hour, using no control, and exhausting to stack S7.

(d) One (1) roll forming-metal process, identified as EU01D, consisting of seven (7) flowcoaters, #0101, #0102, #0104, #0105, #0108, #0109 and #0111, with a maximum capacity of 4588 pounds of formed metal per hour, using a 5.5 MM Btu/hr catalytic oxidizer, RFCO1, and exhausting to stack S8.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts, EU01Athrough EU01D, may cause, allow or permit the discharge into the atmosphere of any volatile organic compound (VOC) in excess of 3.5 pounds of VOC per gallon of coating less water, for air dried coatings.

(b) When operating the catalytic oxidizer for EU01D to achieve compliance with 326 IAC 8-2-9, the catalytic oxidizer shall maintain a minimum 96% overall efficiency. This efficiency and the use of the catalytic oxidizer are required pursuant to 326 IAC 8-1-2(a)(2). Based on 326 IAC 8-1-2(c) and the overall efficiency of 96%, the VOC content of coating shall not exceed 150.61 pounds of VOC per gallon of coating solids delivered to the applicator.

(c) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the PM from EU01C shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Minor Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	**Aisin USA Manufacturing, Inc.**
Source Location:	**1700 East Fourth Street, Seymour, IN 47274**
County:	**Jackson**
SIC Code:	**3714**
Operation Permit No.:	**T071-7527-00017**
Operation Permit Issuance Date:	**February 9, 1999**
Source Modification No.:	**071-11961-00017**
Permit Reviewer:	**Linda Quigley/ENV**

The Office of Air Management (OAM) has reviewed a minor source modification application from Aisin USA Manufacturing, Inc. relating to the operation of a roll forming line which applies adhesive to metal automotive body components.

History

On February 29, 2000, Aisin USA Manufacturing, Inc. submitted an application to the OAM requesting to add an additional surface coating line to their existing plant. Aisin USA Manufacturing, Inc. was issued a Part 70 permit on February 9, 1999.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) roll forming process line, identified as Line 0111, with a maximum capacity of coating 509 pounds of formed metal per hour, using an existing 5.5 million British thermal units (MMBtu) per hour catalytic oxidizer for emissions control, and exhausting to stack S8.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source was issued a Part 70 Operating Permit T071-7527-00017 on February 9, 1999.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S8	Lines 0111, 0101, 0102, 0104, 0105, 0108, 0109 exhausting through catalytic oxidizer to stack	35	1.25	1,200	Ambient

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 29, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 - 2).

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO_2	0.00
VOC	23.61
CO	0.00
NO_x	0.00

HAP's	Potential To Emit (tons/year)
Toluene	less than 10
Methyl Ethyl Ketone	less than 10
Ethylene Glycol	less than 10
TOTAL	less than 25

Justification for Modification

The Title V permit is being modified through a Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(e) because potential VOC emissions are less than twenty-five (25) tons per year, but greater than five (5) tons per year and the catalytic oxidizer is required for the spray booth to comply with 326 IAC 8-2-9.

County Attainment Status

The source is located in Jackson County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as attainment or unclassifiable for ozone.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	Total HAPs
Line 0111	--	--	--	0.94	--	--	0.73
Total Emissions	--	--	--	0.94	--	--	0.73

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1998 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.879
PM-10	0.879
SO_2	0.017
VOC	1.728
CO	0.980
NO_x	3.920

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), no owner or operator of a facility engaged in the surface coating of miscellaneous metal parts, Roll-forming Line 0111, may cause, allow, or permit the discharge into the atmosphere any volatile organic compound (VOC) in excess of 3.5 pounds of VOC per gallon of coating less water, for air dried coatings.

Pursuant to the Title V operating permit (T071-7527-00017), when operating the catalytic oxidizer, to achieve compliance with 326 IAC 8-2-9, the catalytic oxidizer shall maintain a minimum 96% overall efficiency. This efficiency and the use of the catalytic oxidizer are required pursuant to 326 IAC 8-1-2(a)(2). Based on 326 IAC 8-1-2(c) and the overall efficiency of 96%, the VOC content of coating shall not exceed 150.61 pounds of VOC per gallon of coating solids delivered to the applicator.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

326 IAC 2-4.1-1 (New source toxics control)

326 IAC 2-4.1-1 (New source toxics control) does not apply to this new facility because single and combined HAP emissions are less than ten (10) tons per year and less than twenty-five (25) tons per year, respectively.

Compliance Requirements

Permits issued under 326 IAC 2-7are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The catalytic oxidizer, RFCO1, controlling VOC emissions from the metal roll coating line 0111, has applicable compliance monitoring conditions as specified below:

   i. A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and that temperature shall be greater than or equal to the temperature used to demonstrate compliance during the most recent compliant stack test.

   ii. Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

   These monitoring conditions are necessary because the catalytic oxidizer must operate properly to ensure compliance with 326 IAC 8-2-9 (Miscellaneous Metal Coating) and 326 IAC 2-7 (Part 70).

Proposed Permit Changes

SECTION A SOURCE SUMMARY

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is consists of the following emission units and pollution control devices:

(a) One (1) E-coat Line, identified as EU01A, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation;

(b) One (1) E-coat Line, identified as EU01B, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation;

(c) One (1) paint booth, identified as EU01C, with a maximum capacity of 4333 pounds of brake drums per hour, using no control, and exhausting to stack S7;

(d) One (1) roll forming-metal process, identified as EU01D, consisting of ~~six~~ **seven (7)** flowcoaters, #0101, #0102, #0104, #0105, #0108, ~~and~~ #0109 **and #0111**, with a maximum capacity of ~~4079~~ **4588** pounds of formed metal per hour, using a 5.5 MM Btu/hr catalytic oxidizer, RFCO1, and exhausting to stack S8.

(e) One (1) roll forming-pvc process, identified as EU02, with a maximum capacity of 679 pounds of metal molding per hour, using no control, and exhausting to stack S8.

(f) One (1) press forming process, identified as EU03, with a maximum capacity of 61 pounds of metal parts per hour, using no control, and exhausting to stack S1.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) E-coat Line, identified as EI01A, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation.

(b) One (1) E-coat Line, identified as EI01B, with a maximum capacity of 1600 pounds of glass guides per hour, using no control, and exhausting to general ventilation.

(c) One (1) paint booth, identified as EU01C, with a maximum capacity of 4333 pounds of brake drums per hour, using no control, and exhausting to stack S7.

(d) One (1) roll forming-metal process, identified as EU01D, consisting of ~~six~~ **seven (7)** flowcoaters, #0101, #0102, #0104, #0105, #0108, ~~and~~ #0109 **and #0111**, with a maximum capacity of ~~4079~~ **4588** pounds of formed metal per hour, using a 5.5 MM Btu/hr catalytic oxidizer, RFCO1, and exhausting to stack S8.

Conclusion

The operation of this roll forming line, (L0111), shall be subject to the conditions of the attached proposed Minor Source Modification, No. 071-11961-00017.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Aisin USA Manufacturing
Address City IN Zip: Seymour Indiana
CP: 071-11961-00017
Plt ID: 071-00017
Reviewer: LQ/ENV
Date: April 3, 2000

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
A 1689 B	7.1	94.00%	0.0%	94.0%	0.0%	4.40%	0.00056	900.000	6.63	6.63	3.36	80.73	14.73	0.00	150.61	100%
Olester A KAI	8.2	58.00%	0.0%	58.0%	0.0%	32.00%	0.00035	900.000	4.73	4.73	1.48	35.47	6.47	0.00	14.79	100%
Olester B KAI	8.6	41.00%	0.0%	41.0%	0.0%	51.30%	0.00017	900.000	3.53	3.53	0.55	13.19	2.41	0.00	6.88	100%
State Potential Emissions				**Add worst case coating to all solvents**							**5.39**	**129.40**	**23.62**	**0.00**		

Federal Potential Emissions (controlled)

Control Efficiency: VOC	Control Efficiency: PM	Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
96.00%	****	**0.22**	**5.18**	**0.94**	****

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Aisin USA Manufacturing
Address City IN Zip: Seymour Indiana
CP#: 071-11961-00017
Plt ID: 071-00017
Permit Reviewer: LQ/ENV
Date: April 3, 2000

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Toluene	Weight % Methyl Ethyl Ketone	Weight % Ethylene Glycol	Toluene Emissions (ton/yr)	Methyl Ethyl Ketone (ton/yr)	Ethylene Glycol Emissions (ton/yr)
A 1689 B	7.05	0.000564	900.00	40.00%	25.00%	0.00%	6.27	3.92	0.00
Olester A KAI	8.16	0.000347	900.00	0.00%	46.00%	12.00%	0.00	5.13	1.34
Olester B KAI	8.61	0.000173	900.00	10.00%	13.00%	6.00%	0.59	0.76	0.35
Total State Potential Emissions							**6.86**	**9.82**	**1.69**

Combined Haps = **18.36**

Federal Potential Emissions (controlled) **96 % efficiency =** **0.73**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs